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Appln. No.: 10/037,125 MAT-8196US
Amendment Dated: December 4, 2003
Reply to Office Action of: October 17, 2003

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) ~~The component mounting method as defined in Claim 4, wherein said~~ A component mounting method for placing and soldering components onto a board, said method comprising:

(a) printing solder on electrodes on the board so as to shift and create a predetermined offset of said solder from a center line of at least one of a plurality of electrode lines which are disposed in three parallel lines, said electrode lines being formed in a parallel on the board, at fixing positions said solder for securing said components when bonding respective component terminals, and said center line linking center positions of a pair of electrodes configuring said one of electrode lines;

(b) placing the component after solder printing so that a placement position is shifted by said offset with respect to the center line of said one of said electrode lines;

(c) moving said component toward the center line by heating the board to melt the solder after placing the component; and

(d) securing said component terminal at the center line by solidifying the solder after moving the component wherein said offset is set to a value allowable between the position of said terminal and the center line of said one of said electrode lines when placing the component in said step (b) by taking into account a self-alignment effect of melted solder while soldering of

said electrodes and said terminals; and movement in said step (c) occurs as a result of said self-alignment effect.

6. (Currently Amended) The component mounting method as defined in Claim 5, wherein solder for a middle electrode line in said three [[electrode]] lines is printed matching a center line of said middle electrode line.

7. (Currently Amended) The component mounting method as defined in Claim 6, wherein solder for both outer electrode lines in said three [[electrode]] lines is printed at a position offset outward from a center line of each of said outer electrode lines.

8. (Currently Amended) ~~The component mounting method as defined in Claim 4, wherein said~~ A component mounting method for placing and soldering components onto a board, said method comprising:

(a) printing solder on electrodes on the board so as to shift and create a predetermined offset of said solder from a center line of at least one of a plurality of electrode lines which are disposed in four parallel lines, said electrode lines being in parallel on the board, said solder for securing said components when bonding respective component terminals, and said center line linking center positions of electrodes configuring said one of electrode lines;

(b) placing the component after solder printing so that a placement position is shifted by said offset with respect to the center line of said one of said electrode lines;

(c) moving said component toward the center line by heating the board to melt the solder after placing the component; and

(d) securing said component terminal at the center line by solidifying the solder after moving the component wherein said offset is set to a value allowable between the position of said terminal and the center line of said one of said electrode lines when placing the component in said step (b) by taking into account a self-alignment effect of melted solder while soldering of said electrodes and said terminals; and movement in said step (c) occurs as a result of said self-alignment effect.

9. (Currently Amended) The component mounting method as defined in Claim 8, wherein solder is printed at a position offset outward from a center line of each electrode line in all of said four [[electrode]] lines.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) ~~The component mounting method as defined in Claim 11, wherein said plurality of electrode lines~~A component mounting method for placing and soldering components onto a board, said method comprising:

(a) printing solder on electrodes on the board so as to shift and create a predetermined offset of said solder from each center line of both outer electrode lines of a plurality of electrode lines which are three parallel lines parallel on said board;

(b) placing said component on said solder printed on each electrode in said outer electrode lines so that the placement position is shifted outward by said offset with respect to the center line of each electrode line;

(c) moving said component toward the center line of respective electrode lines by heating the board to melt the solder after placing the component; and

(d) securing terminals of said component onto said electrodes by solidifying the solder wherein said offset is set taking into account a self-alignment effect of melted solder while soldering in a reflow process.

13. (Original) The component mounting method as defined in Claim 12, wherein solder is printed matching a center line of a middle electrode line in said three electrode lines.

14. (Currently Amended) ~~The component mounting method as defined in Claim 11, wherein said electrode lines~~ A component mounting method for placing and soldering components onto a board, said method comprising:

(a) printing solder on electrodes on the board so as to shift and create a predetermined offset of said solder from each center line of both outer electrode lines of a plurality of electrode lines which are four parallel lines parallel on said board;

(b) placing said component on said solder printed on each electrode in said outer electrode lines so that the placement position is shifted outward by said offset with respect to the center line of each electrode line;

(c) moving said component toward the center line of respective electrode lines by heating the board to melt the solder after placing the component; and

(d) securing terminals of said component onto said electrodes by solidifying the solder wherein said offset is set taking into account a self-alignment effect of melted solder while soldering in a reflow process.

15. (Original) The component mounting method as defined in Claim 14, wherein solder is printed at a position offset outward from a center line of each electrode line in all of said four electrode lines.

16. (Original) The component mounting method as defined in Claim 15, wherein an offset set for two inner electrode lines in said four electrode lines is smaller than an offset set for two outer electrode lines.

17. (New) A component mounting method according to claim 5, wherein said three parallel lines are three of five or more parallel lines.

18. (New) A component mounting method according to claim 12, wherein said three parallel lines are three of five or more parallel lines.